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Citation for published version:

Kozlova, I., Parra Rodrigues, M & Della Sala, S 2018, 'Acreemagnosia (Loss of financial knowledge): A symptom of functional and cognitive loss in frail elderly', *International Journal of Geriatric Psychiatry*, vol. 33, no. 2, pp. 434-435. <https://doi.org/10.1002/gps.4744>

Digital Object Identifier (DOI):

[10.1002/gps.4744](https://doi.org/10.1002/gps.4744)

Link:

[Link to publication record in Edinburgh Research Explorer](#)

Document Version:

Peer reviewed version

Published In:

International Journal of Geriatric Psychiatry

Publisher Rights Statement:

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**Acreemagnosia (Loss of financial knowledge):
a symptom of functional and cognitive loss in frail elderly**

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Key words: Alzheimer's disease; Mild Cognitive Impairment; Cognitive Aging; Geriatric Assessment, Financial Management; Instrumental activities of daily living.

The ability to maintain one's own finances is a complex function which relies on several cognitive constructs. Its decline is argued to be an early symptom of dementia and a strong predictor of future cognitive decline [1]. The impairment in financial abilities and the lack of awareness of such deficits carry considerable social and legal impact, and are among the primary factors precluding independent life and requiring legal assistance. Despite its relevance, little attention has been paid to this common symptom. To highlight the specificity of the symptom we suggest a term to define it: *Acreemagnosia*, from the Ancient Greek ἀ- (a-, "lack of"), χρήμα (creema, "money") and γνωσιακή (gnôsis, "knowledge").

Data from recent studies suggest that managing finances is among the earliest IADL impairments in MCI. Sikkes *et al.* [2] in a longitudinal study on the Instrumental Activities of Daily Living (IADL) scales' ability to predict future dementia showed that two of the most discriminating items between normal and pathological ageing were handling money and understanding personal financial affairs. Peres *et al.* [3] showed that decline in managing finances was the strongest predictor of cognitive decline up to 10 years before the onset of dementia.

Most IADL scales include only a few items inquiring about financial abilities, and these items are rather dated. However, the clustering resulting from item analysis of the output from these scales suggests that Acreemagnosia is a deficit in its own right and as such should be recognized, offering a conceptual frame within which to devise appropriate assessing instruments.

Three instruments have been specifically developed to evaluate financial abilities: (i) The Financial Capacity Instrument (FCI) [1] and subsequent variants, none of which is available for use; (ii) The Financial Competence Assessment Inventory (FCAI) based on the legal and monetary Australian and American systems also unavailable for public use and never

published in full; (iii) The Measure of Awareness of Financial Skills (MAFS) based on the view that awareness of financial abilities is a central component of competence as unawareness would relate to the severity of cognitive impairment. Contrary to their prediction though, the authors found very little correlation between performance on different cognitive tests assessing executive functions, global cognitive function, and degree of financial awareness.

Indeed, specific cognitive impairments and the ability to make financial decisions are dissociated and people who perform well on psychometric tests may still perform poorly on financial competence tests. Okonkwo *et al.* [4] in their study using FCI together with a comprehensive neurocognitive battery, demonstrated that executive deficits (assessed by means of WAIS-III, Trial Making Test A, and visuo-motor sequencing) and impairment of attention (assessed by means of the Dementia Rating Scale (DRS)-2, Attention and Wechsler Memory Scale (WMS)-III, Spatial Span Forward) were the only cognitive impairments associated to the financial abilities decline of people with amnesic MCI. Other studies however have questioned the correlation between scores in cognitive tests and financial management competence. Basset [5] in her study with mild and moderate AD patients found no correlation between general cognitive function (as measured by the MMSE) and financial competence. There is growing concern that cognitive assessment tests are unsuitable for evaluating financial ability.

Assessing the possible presence of Acromagnosia with proper instruments is important as older people are at great risk of functional dependence and are prone to different types of financial frauds. There is an unmet need for a new instrument, which could aid the diagnosis of Acromagnosia and quantify its severity. Such tool should incorporate informant-based, self-report and performance-based measures that would complement each other. It should be

based on sound psychometric techniques (e.g., Item Response Theory Analysis) and should incorporate unidimensional items which measure specific constructs as well as items which measure more than one construct, referred to as complex. It should consider prior knowledge, proficiency or interest in finances. Finally, the ideal instrument assessing financial competence will have to be culturally valid.

Acknowledgments

We acknowledge the support from the Alzheimer's Society through the grants AS-R42303 and AS-SF-14-008 awarded to MAP in collaboration with SDS.

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